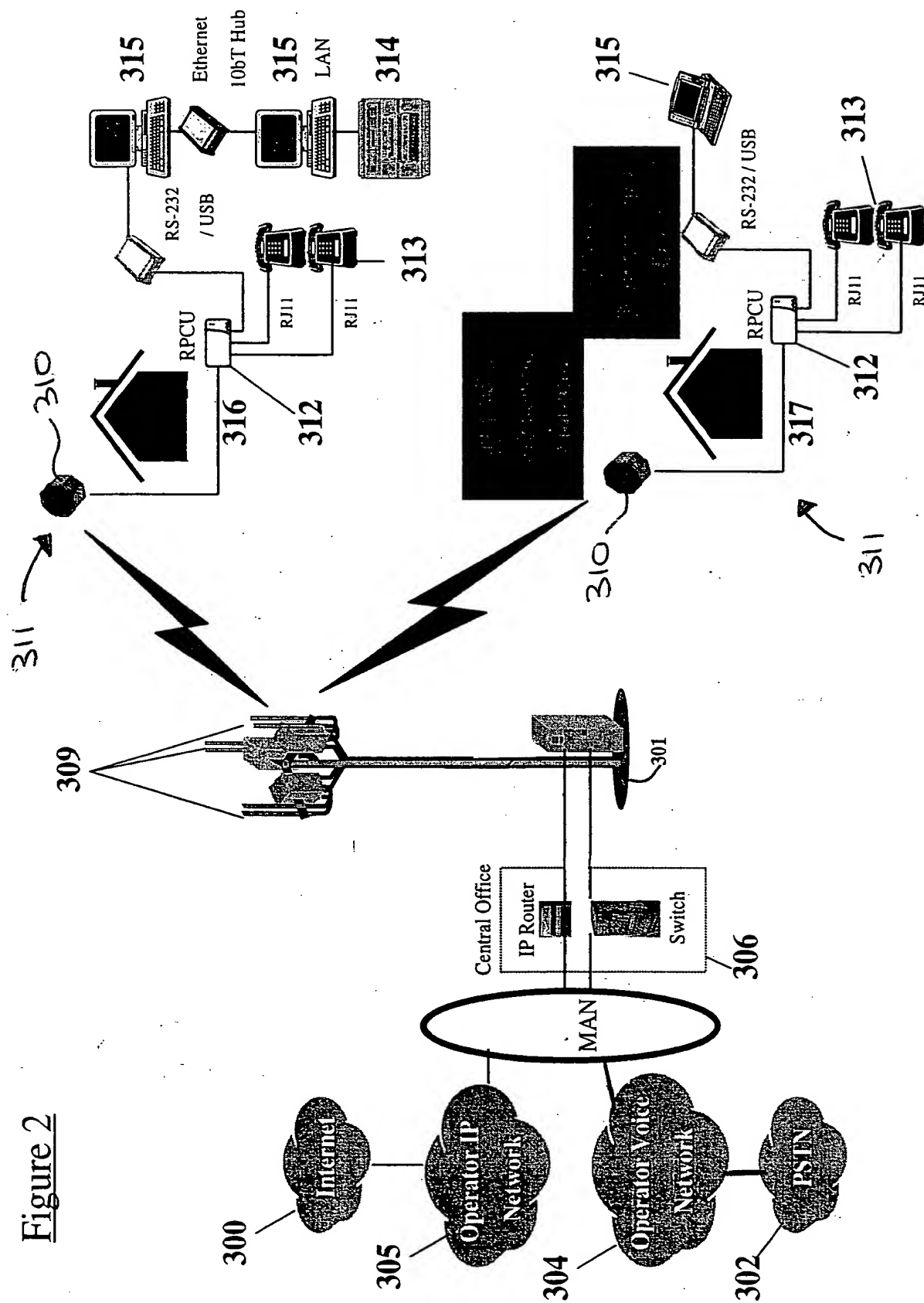




Figure 2



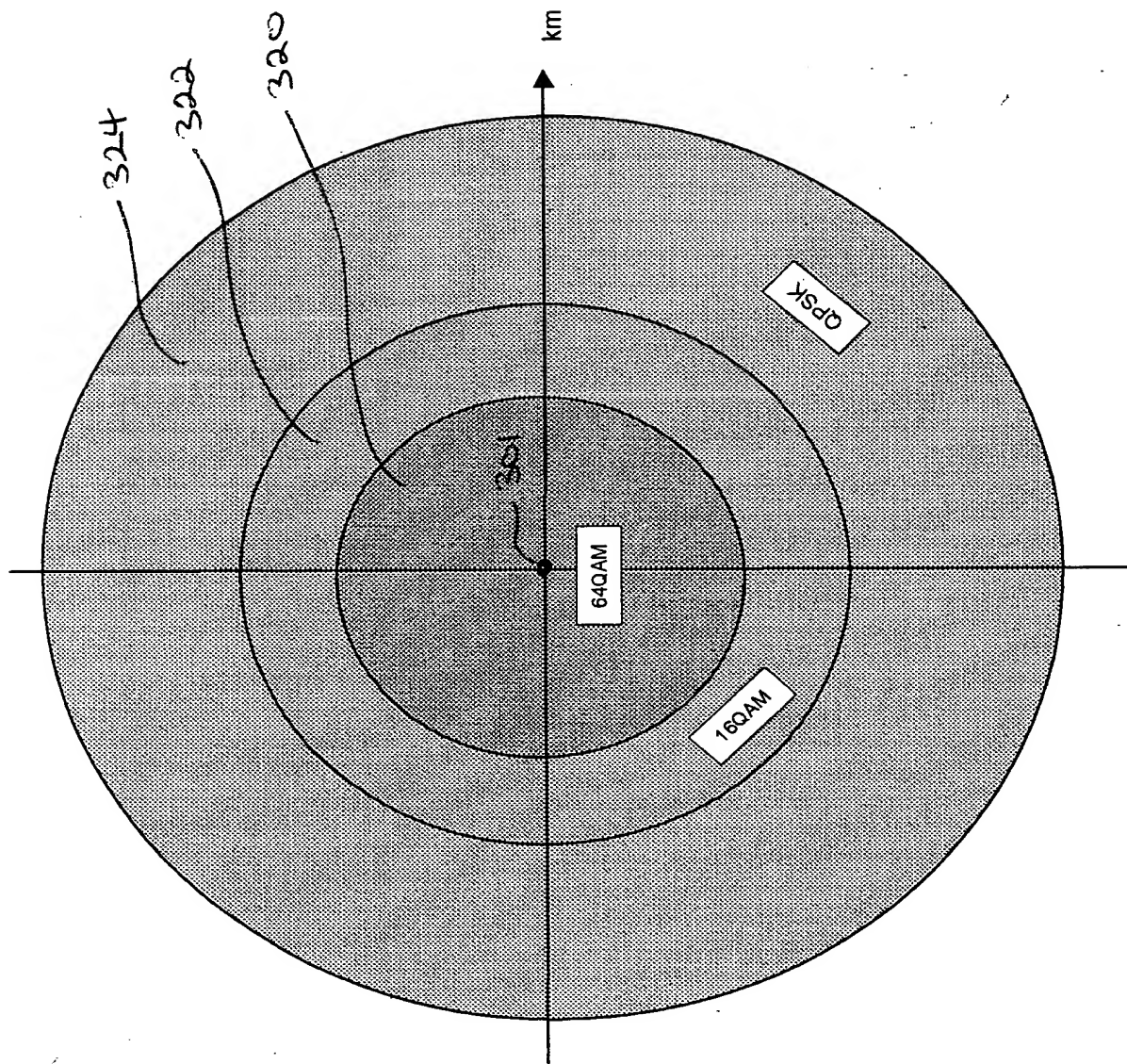
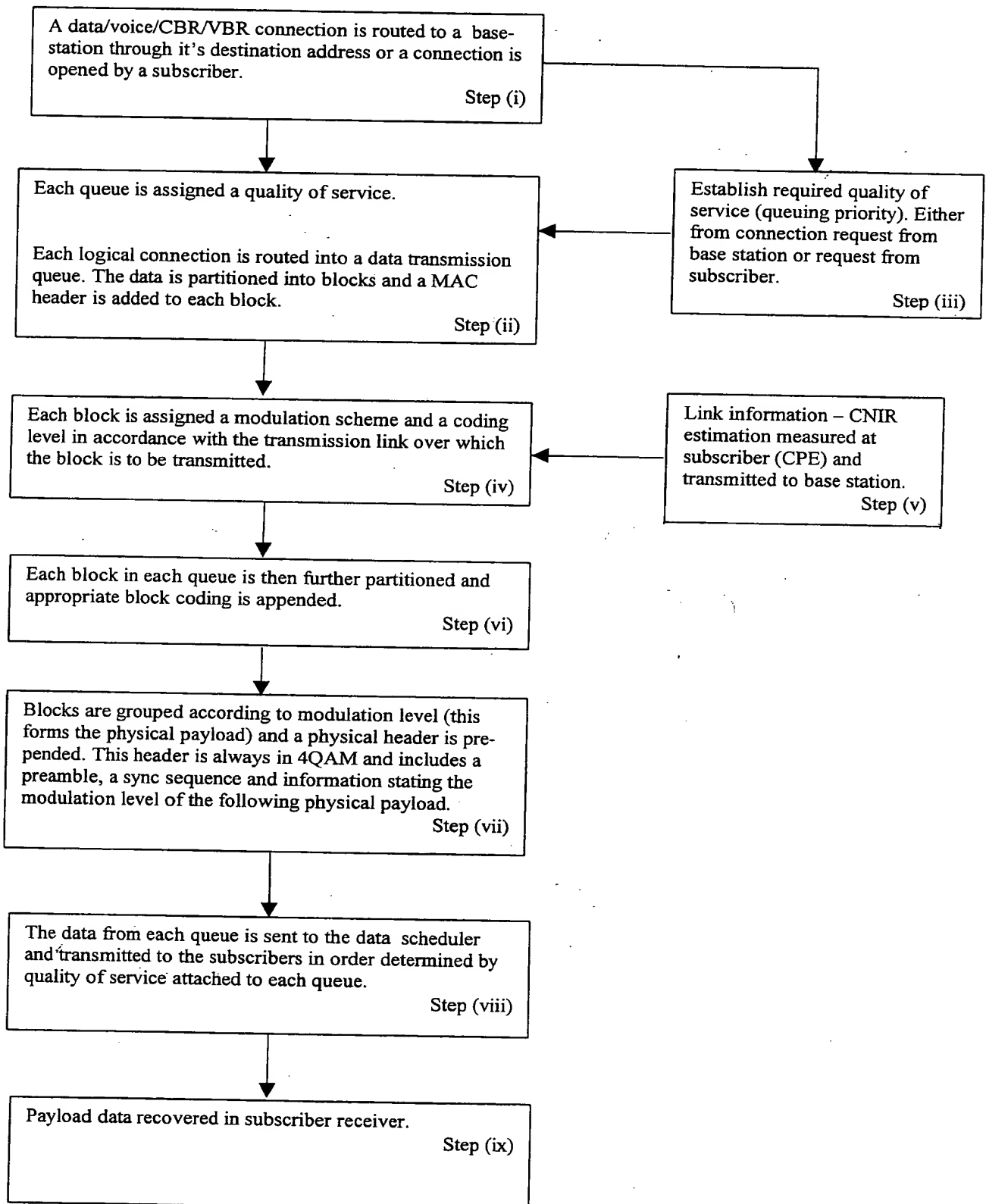
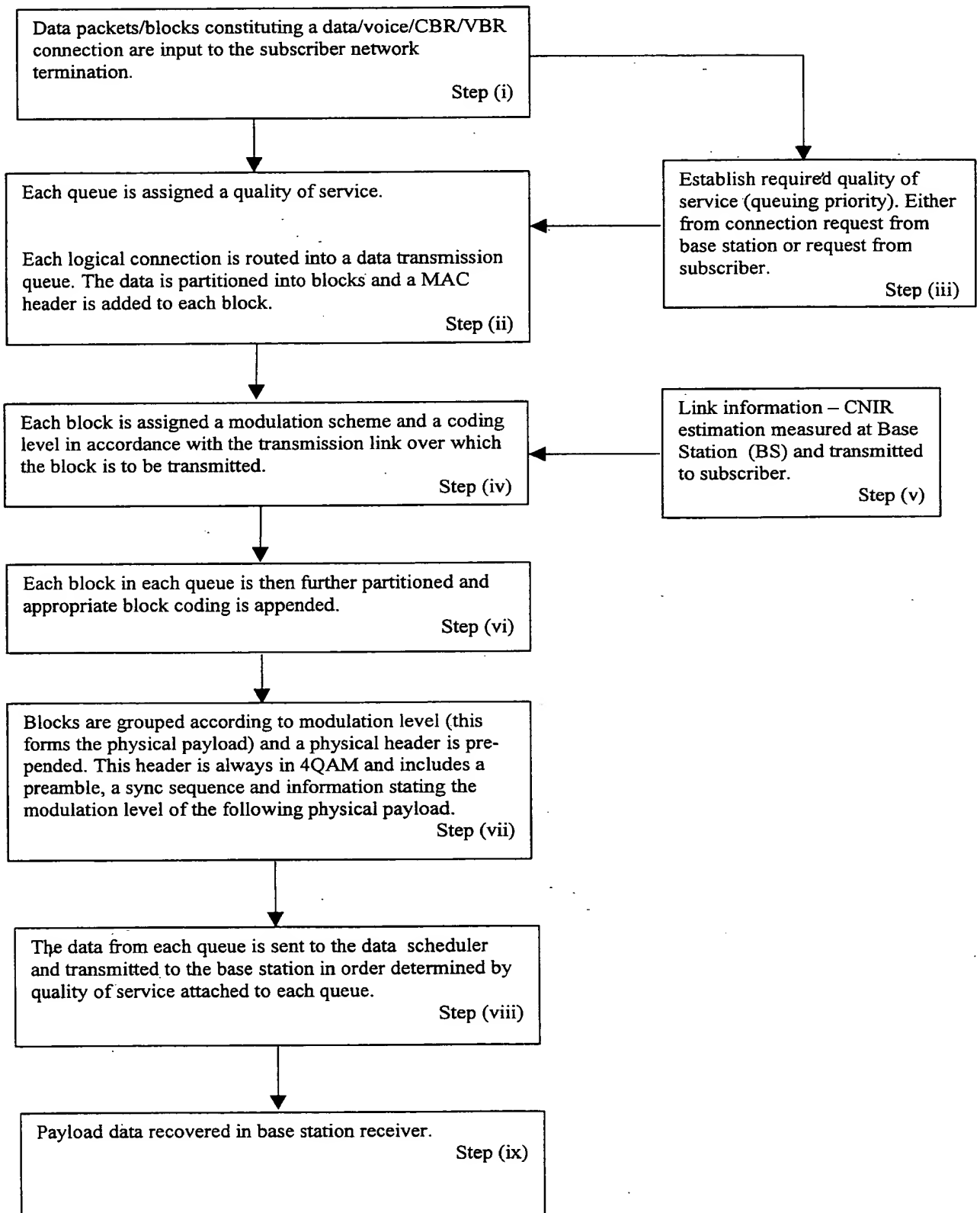


Figure 3

**Figure 4: DOWNSTREAM – Base station to subscriber issue 0.2**



**Figure 5: UPSTREAM – Subscriber to base station**      **Issue 0.2**



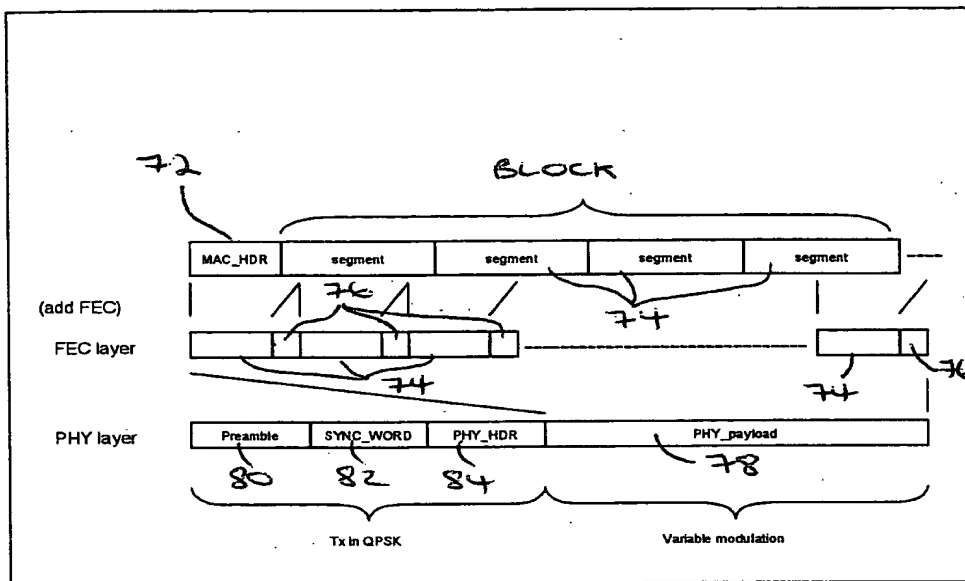


FIG 7

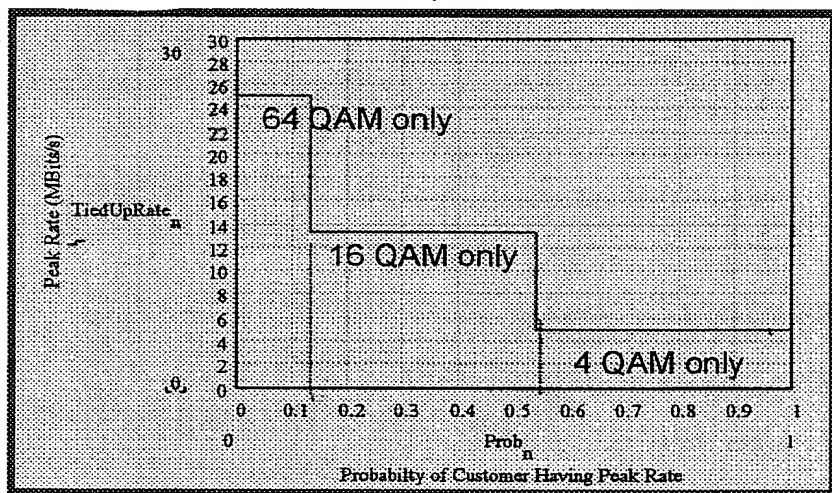


FIG 8a

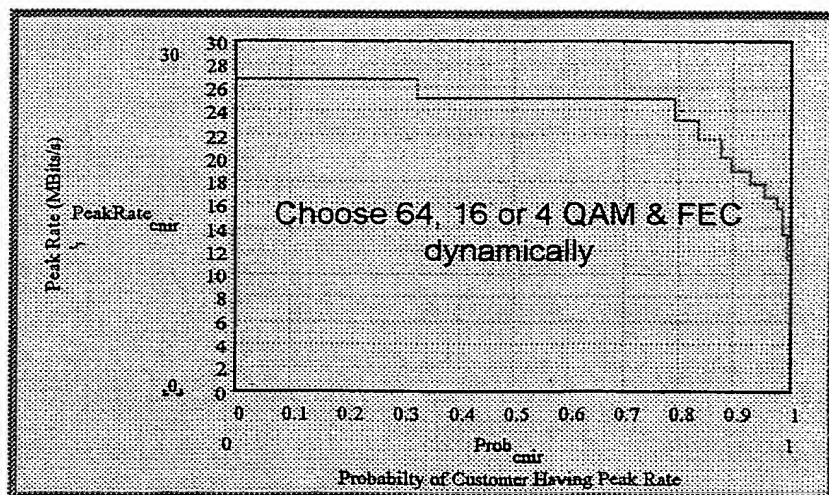
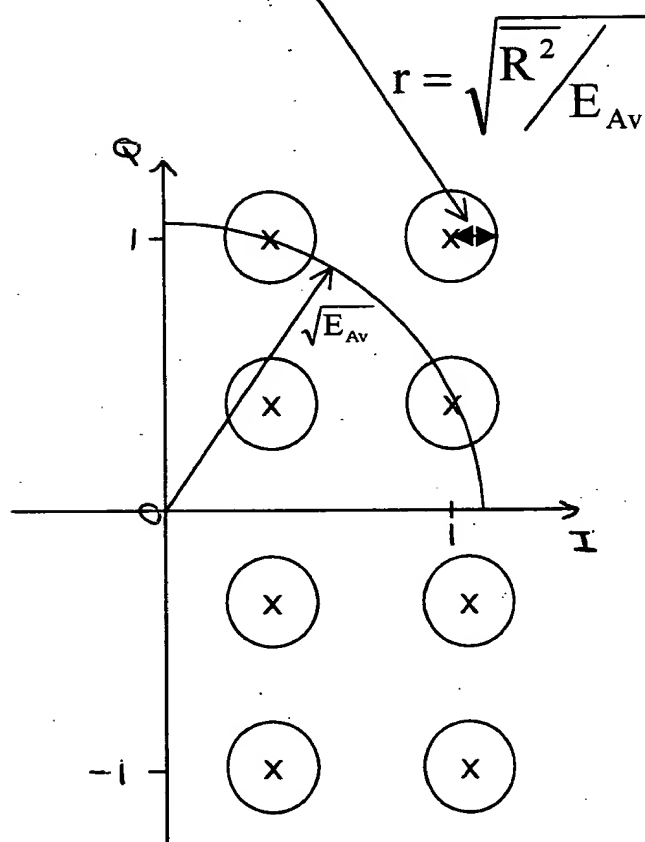


FIG 8b

The R are the actual vector error measurements



**16QAM**

Fig 9.

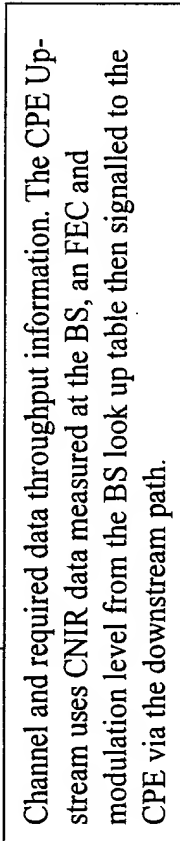




The diagram illustrates the CPE Receive Path (Down-stream Path) for a communication system. The path begins with a **Receive Antenna** (310) connected to **RF Stages** (124). The signal then passes through an **IQ Demodulator** (126). Following the demodulator, the signal is processed by a **FIR matched pulse shaping filter** (132). The output of the filter is then split into three parallel paths for modulation detection: **64QAM (1 of 64 Symbols)** (134a), **16QAM (1 of 16 Symbols)** (134b), and **QPSK (1 of 4 Symbols)** (134c). These paths converge into a single line labeled **In-phase & quadrature voltage Detection (and thus symbol detection)** (135). This detection block provides a **Modulation select** signal to the **FIR matched pulse shaping filter** and a **FEC select** signal to the **FEC decode and data output** block. The output of the detection block is then fed into the **Down-stream Vector error (CNIR) Estimation (for return to Base Station)** block (138). The **FEC decode and data output** block (140) includes the **Payload & up-link channel data**.

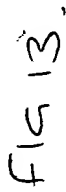
File 11

**CPE Transmit Path**  
(Up-stream Path)



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